

Science), and will be found fully reported in the account of the proceedings of that section. Apart from these two papers, the most noteworthy contribution was one by Messrs. James and Fleure, giving an account of the progress of the University of Wales Ethnographical Survey. It is hoped to extend the survey to all the purely Welsh people, but at present only a limited area has been examined. Still, the results, although purely tentative, are very striking, and the population of the district examined may be said to fall into four distinct groups, of which two may be provisionally identified with *Homo mediterraneus* and the "Northern Race." The survey which has been so auspiciously started is one from which most important and valuable results may be expected, and it is to be hoped that the work will be energetically pushed forward, as the population is rapidly changing, and in a comparatively few years it may be too late.

In papers dealing more or less with ethnography, Mr. J. W. Crowfoot directed attention to the importance of the Anglo-Egyptian Sudan as a field for anthropological research. A great part of the district is virgin soil, and only waits the advent of the anthropologist to produce most important results, while in the northern Sudan the dervish rule has completely changed the conditions, whole tribes having been devastated, transplanted, or mixed with foreign blood. Still, the three main language groups remain, but the problem of the origin of the people using them still awaits solution. It is a matter for regret that Dr. Pirrie was unavoidably prevented from giving his promised account of the Buruns, as his observations would have had an important bearing on Mr. Crowfoot's paper.

Apart from the president's address, on "Religious Survivals," which has been reported in NATURE, the only paper dealing purely with religions was Dr. Farnell's criticisms of Dr. Usener's theories concerning Sonder-Götter and Augenblick-Götter. The divinities of which Dr. Usener treats are those which have no proper personal names, but mere appellatives, to express their functions. Such divinities are found in the Roman and Greek cults, and a few examples have been noted among savage peoples. The system may be regarded as a peculiar form of animism. Dr. Usener's theory assumes that these divinities are relics of a very primitive period, when imagination had not created concrete personal divinities, and that the Greek Pantheon was deeply indebted to this system. Dr. Farnell argued that the Greek evidence did not support these assumptions, and that many of these Greek appellative *numina* may be creations of personal polytheism, mere emanations of concrete divinities.

The subject of totemism was dealt with by Mr. G. L. Gomme in a paper on its origin. Mr. Gomme was of opinion that totemism must have arisen from conditions of human life which are universal, and which are probably supplied by migration. Sex cleavage was produced by the fact that woman was the stationary animal, and in this way became more closely associated with friendly animals, plants, &c., to which she looked for protection and food rather than to the male, who constituted a migratory element; women thus influenced the totem names. Mr. Gomme's conclusion was that totemism began as an artificial association of groups of people, and was not based on a kinship society.

Sociology was also dealt with in two papers by Dr. Rivers, one criticising Morgan's Malayan system of relationship, and the other offering some most valuable suggestions for the definition of the technical terms used by anthropologists, especially with regard to the divisions of society and marriage and descent. He urged the importance of the terms used being strictly defined, and also the necessity of some general agreement in their use being obtained.

A most suggestive technological paper was one by Prof. J. L. Myres on a terminology of decorative art. The necessity of arriving at a terminology was strongly emphasised, as persons would thus be enabled to describe by some recognised terms the arrangement and *motif* of any pattern in the same way as the herald is able to describe, without graphic illustration, the colours and component parts of any coat of arms, however complicated. The basis of any such system must be strictly technological; it must be a description of what the artist did,

of the order in which he did it, and of the effect produced, and all minor elements in the design must be located by reference to the major element on which they are based. Such a terminology must, of course, be elaborated gradually, but Prof. Myres's valuable suggestions should serve as an admirable basis on which the work may be built up, and it is to be hoped that all persons interested in decorative art will assist him in his efforts to arrive at a sound scientific terminology, the practical value of which cannot be overestimated.

Attention was directed by Mr. Newbery and Dr. Bryce to what is practically an unworked field, namely, the so-called "door-step" art of the west of Scotland. The patterns, which are drawn solely by women, are of great variety, are purely geometrical and conventional, and are used to decorate doorsteps, hearths, &c. The drawings are very primitive, and represent an early stage of artistic evolution. Mr. Newbery was of the opinion that the designs were the expression of a primitive art instinct, but since they are traditional in character, being handed down from generation to generation, it seems more likely that they are a survival. However this may be, there can be no question as to their interest, both in themselves and as a field for research. Another paper of interest to which passing reference may be made was one in which Prof. Ridgeway sought to identify the origin of the crescent as a Mohammedan badge, not with the young moon, but with the well-known amulet of two boar's or other animal's claws or tusks set base to base in crescent form.

Amongst the reports of committees, reference should be made to that appointed to excavate the Lake Village at Glastonbury, which hopes to be able to complete its long work this month (August), and to the Stone Circles Committee. This committee was able to make the announcement that it had received permission to conduct excavations in the Avebury Stone Circle, from which important results cannot fail to be obtained, results which should go far towards accomplishing the object of the committee, namely, to ascertain the age of these structures.

UNIVERSITY AND EDUCATIONAL INTELLIGENCE.

LONDON.—University College: In consequence of the removal of University College School to Hampstead, the south wing of the college buildings has been set free for university purposes, enabling the following developments to take place, beginning with the new session:—In the mechanical engineering department a new hydraulic laboratory will be provided in the basement, and also additional space for experimental work in mechanical engineering during the second and third years. A separate laboratory will be set aside for research work, thereby leaving the main laboratory entirely free for undergraduate work. In the department of electrical engineering, the present lecture-room will be replaced by a large new lecture-room with a small demonstration class-room adjoining it. The old lecture-room will be fitted up as an experimental room for advanced students. The electrical engineering department will also contain a research laboratory with apparatus and preparation rooms adjoining. The department of applied mathematics will also receive considerable extensions, providing two special research laboratories and ample accommodation for the work being carried on in the Galton Eugenics Laboratory. New accommodation will be provided for the department of geology, and include a museum, with a research room, and a lecture-room suitably equipped with lantern apparatus. Applications for the prospectus should be made to the secretary of the institution.

LORD KELVIN will open the new science buildings of Queen's College, Belfast, on September 26.

A COMMITTEE has been formed to promote the raising of a memorial to the late Major D. M. Moir, I.M.S., professor of anatomy at the Medical College, Calcutta, who died of septicæmia contracted in the execution of his public duties. It is hoped that sufficient money will be obtained to found a prize or to endow a bed, after providing for a tablet and portrait in the college hospital. The

treasurer of the fund is Dr. Suresh P. Sarbadhicary, 79/1 Amherst Street, Calcutta.

THE Paris correspondent of the *Lancet* states that the Governor-General of Algeria has brought a proposal for the founding of an Algerian university before the financial delegates, who have adopted it. It will be remembered that the late M. Moissan and Prof. Bouchard, having inspected the secondary schools in Algiers, reported favourably on the founding of a university. They proposed the establishment of an institute of natural science, experimental botany, zoology, and hygiene, and pointed out the political and social effects of the foundation of a university which would form a powerful link between the various races which form the population of Algeria.

THE secondary and agricultural school at Bigods Hall, Dunmow, which was established by Lady Warwick ten years ago to provide a scientific education in agricultural affairs for the boys and girls of the district, is to be closed. The Earl of Warwick, in a letter to the chairman of the Essex Education Committee, explains the reasons for the taking of this step. He states that, although the county committee has given the school a grant, it has intimated the possibility of a re-consideration of the educational necessities of the locality, and the headmaster has received the offer of another appointment; complaint is also made that the school has suffered from a lack of cordial support from the committee.

SOCIETIES AND ACADEMIES.

PARIS.

Academy of Sciences, August 19.—M. A. Chauveau in the chair.—Presentation of vol. xiii. of the *Annales de l'Observatoire de Bordeaux*: M. **Loewy**. This volume contains an account of the work done at Burgos on the total eclipse of the sun of August 30, 1905, by MM. Rayet and Courty, also actinometric observations made by M. Esclangon at Bordeaux, from a balloon, on the same occasion. The observations made during 1899 and 1900, forming the contribution of the Bordeaux Observatory to the photographic catalogue of the sky, are also given.—Symmetrical dimethylethylene oxide, $\text{CH}_2\text{—CH—CH—CH}_3$:

Louis **Henry**. A study of the reaction between this oxide and methyl-magnesium bromide. The tertiary alcohol, $(\text{CH}_3)_2\text{C}(\text{OH})\cdot\text{C}_2\text{H}_5$, is formed exclusively, from which it follows that this substituted ethylene oxide behaves towards the magnesium compound as though it were first converted into the isomer $\text{CH}_3\cdot\text{CO}\cdot\text{CH}_2\cdot\text{CH}_3$.—The comet 1907*d*: Ernest **Esclangon**. Observations with the large equatorial of the Observatory of Bordeaux on August 1, a specially clear night, brought out many details of the comet's structure. The nucleus was brilliant, sensibly circular, and appeared like a star of 5.5 magnitude. No scintillation was noticed, from which it may be concluded that the nucleus has a real sensible diameter, corresponding to the apparent diameter of the image of about 8". Combining this with the known distance from the earth, the nebulosity forming the head would have a diameter about thirteen times that of the earth. The structure of the tail of the comet is shown in a figure.—The results of observations made at Cistierna, Spain, during the total eclipse of the sun on August 30, 1905: A. **Lebeuf** and P. **Chofardet**. Clouds interfered with observations during totality, but measurements were made of the first and fourth contacts, a reduction of these measurements being given.—The variations of the absorption bands of crystals of parisite and tysonite in a magnetic field at the temperature of liquid air: Jean **Bequerel**. The magneto-optical properties of two crystals of the same family present close resemblances, but with marked difference in details. From the behaviour of the bands in parisite it is concluded that either there must be an inversion of the magnetic field in certain parts of the interior of the crystal, or positive and negative electrons must exist simultaneously.—The motion of electricity without action between the electric charges and without external forces: T. **Levi-Civita**.—Some modifications which produce the splitting up of the curve of rate of decay of induced radio-activity: Ed.

Sarasin and Th. **Tommasina**.—The atomic weight of radium: Mme. **Curie**.—The disengagement of the emanation by radium salts at various temperatures: L. **Kolowrat**. It is known that the quantity of emanation produced in unit time is constant. When the salt is in solution, the whole of the emanation is evolved, but in the solid state a part remains in the salt. The author confirms the observation of J. Curie and J. Danysz, that when the radium salt is fused the whole of the emanation is given off. At a fixed temperature the quantity of emanation obtainable from a salt previously deprived of its emanation in a given time is a function of the temperature. It results from this work that, in the application of the method of heating to the estimation of radium in minerals or other solid substances by the disengagement of the emanation, it is absolutely necessary to fuse the material.—The dissociation of calcium carbonate: D. **Zavrieff**. A repetition of the work of H. Le Chatelier, especial care being taken to secure uniformity of temperature. The dissociation pressures are given for six temperatures ranging between 815° C. and 926° C.—The alloys of nickel and tin: Em. **Vigouroux**. Alloys containing between 57.65 per cent. and 66.76 per cent. of tin treated with hydrochloric acid leave residues richer in nickel, approximating to Ni_3Sn_2 ; treatment with nitric acid, on the contrary, gives alloys richer in tin, tending towards NiSn . All these alloys are brittle, brilliant, and non-magnetic.—Study of the alloys of cobalt and tin: F. **Ducelliez**. Alloys containing less than 50 per cent. of tin behave as mixtures of cobalt and Co_3Sn_2 , the latter remaining when the alloys are subjected to the action of dilute nitric acid.—The action of some substances upon potassium iodide: B. **Szilard**.—A new and very sensitive method for the qualitative detection of nickel: Emm. **Pozzi-Escot**. The method is based on the fact that molybdate of nickel is insoluble in presence of an excess of alkaline molybdate, whilst cobalt molybdate is very soluble under the same conditions.—The preparation of unsymmetrical halohydrins and the properties of the corresponding ethylene oxides: MM. **Fourneau** and **Tiffeneau**.—Rhinanthin: Marcel **Mirande**.—The ichthyological fauna and the age of the shell marls of Pourcy (Marne): Maurice **Leriche**.

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